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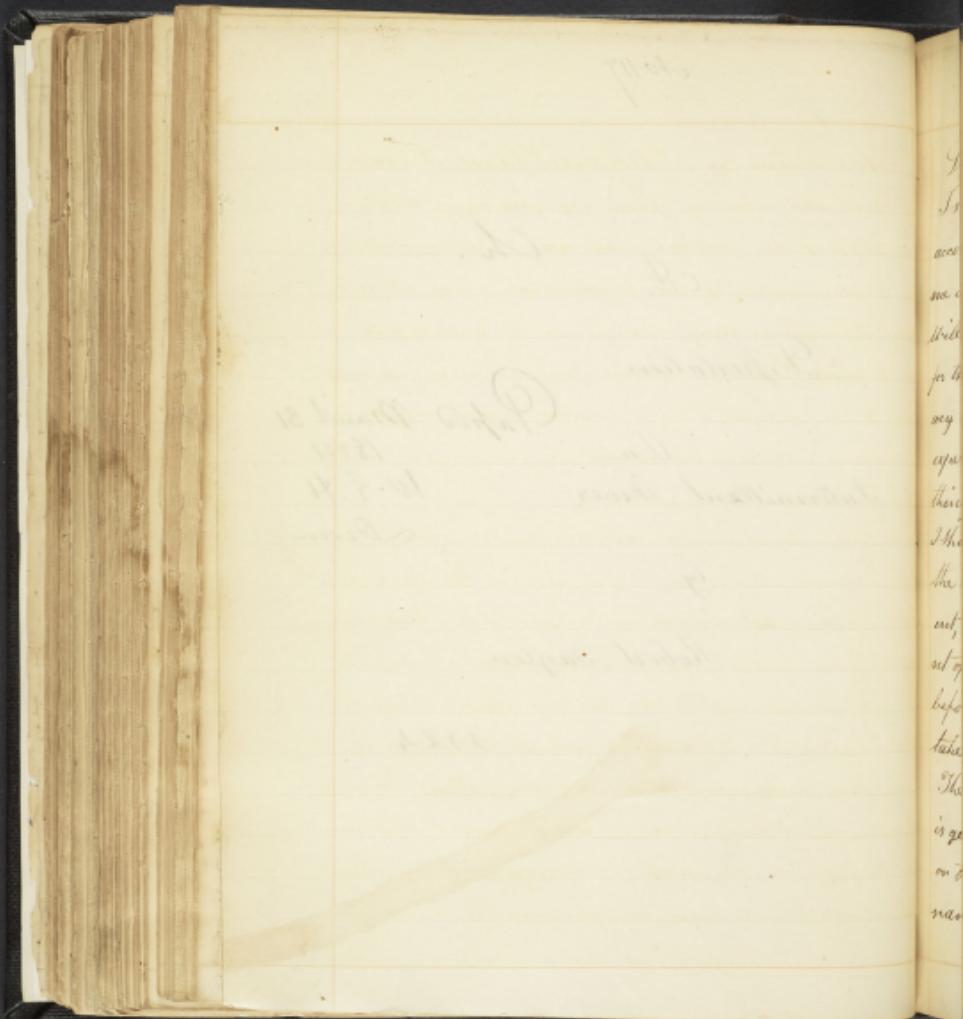
Dissertation
On
Intermittent Fever

Paper March 31
1824
W. G. H.
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Robert Taylor

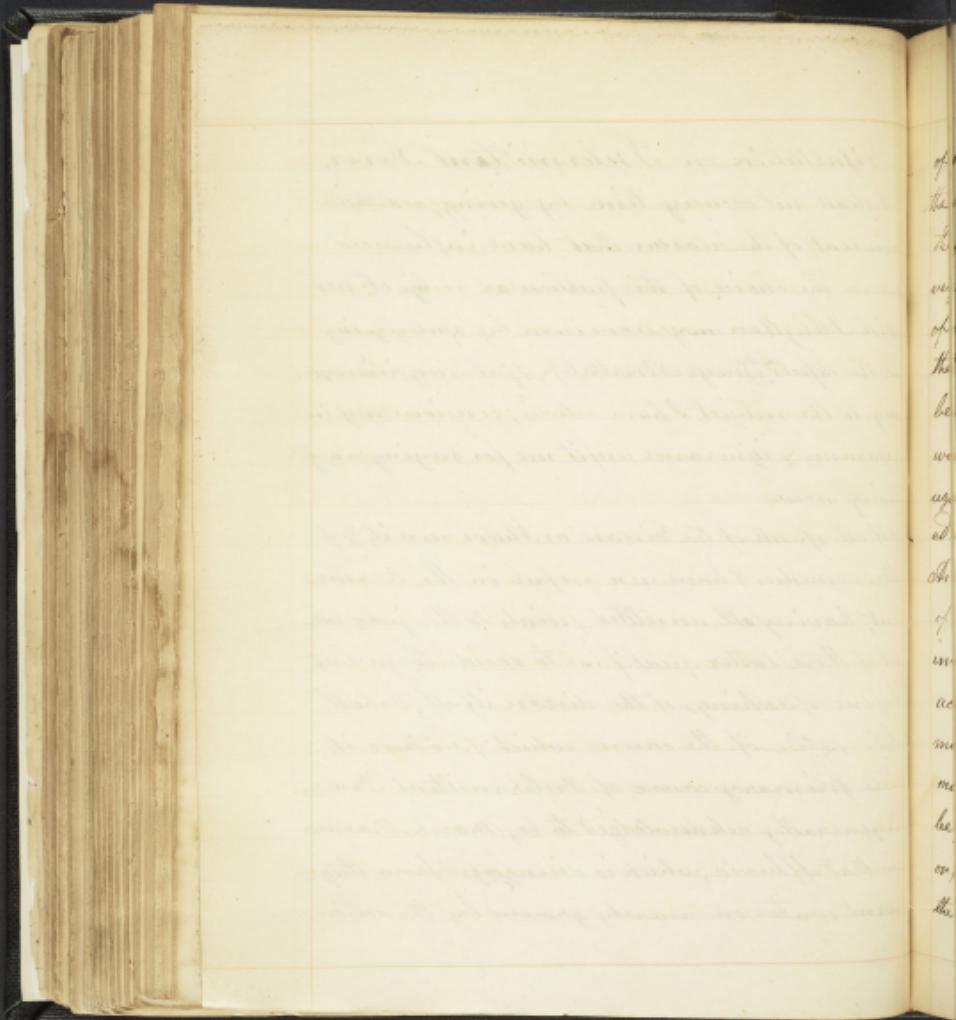
1824



Dissertation on Intermittent Fever.
I shall not occupy time by giving a detailed account of the reasons that have influenced me in the choice of this particular subject; nor will I lengthen my exordium by apologizing for the defect^s ~~in~~ ^{of} my knowledge. Nevertheless, I feel very inadequacy to the subject, I have selected; conscious my inexperience & ignorance unfit me for saying anything new.

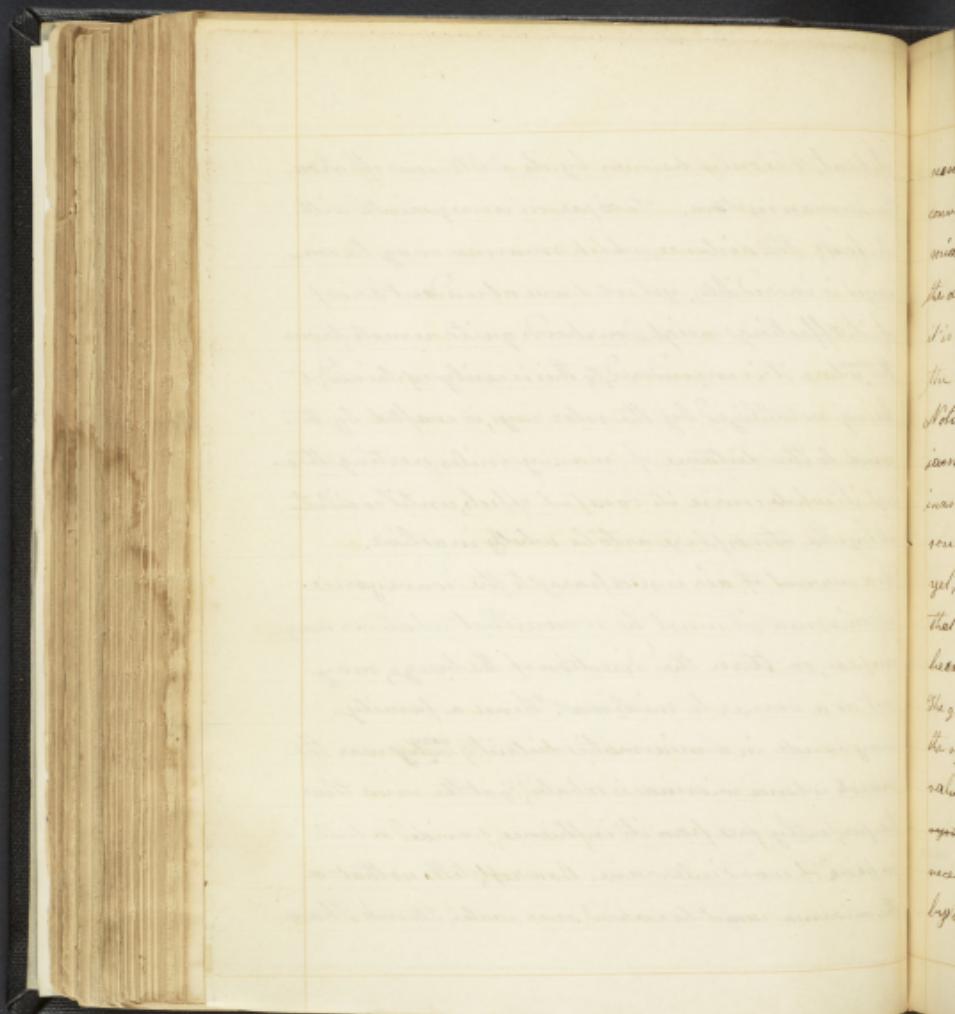
I shall speak of the disease as I have seen it, & of the remedies I have seen useful in the treatment, leaving all unsettled points to the judgment of those better qualified to decide them; but before speaking of the disease itself, I shall take notice of the causes which produce it.

The primary cause of Intermittent Fever, is generally acknowledged to be, Marsh Malaria or that effluvia, which is disengaged from stagnant water on marshy ground by the action



of heat, & is only known by its deleterious effects on
the human system.—To a person unacquainted with
the fact, the distance, which miasma may be con-
veyed is incredible, yet we have abundant proof
of its effecting neighbourhood quite remote from
the ^{time} where it is engendered, & this is easily explained; it
being volatilized by the solar rays, is wafted by the
wind to the distance of many miles, exerting thro-
ugh its whole course its baneful effects, until so dilut-
ed by the atmosphere as to be wholly inactive.

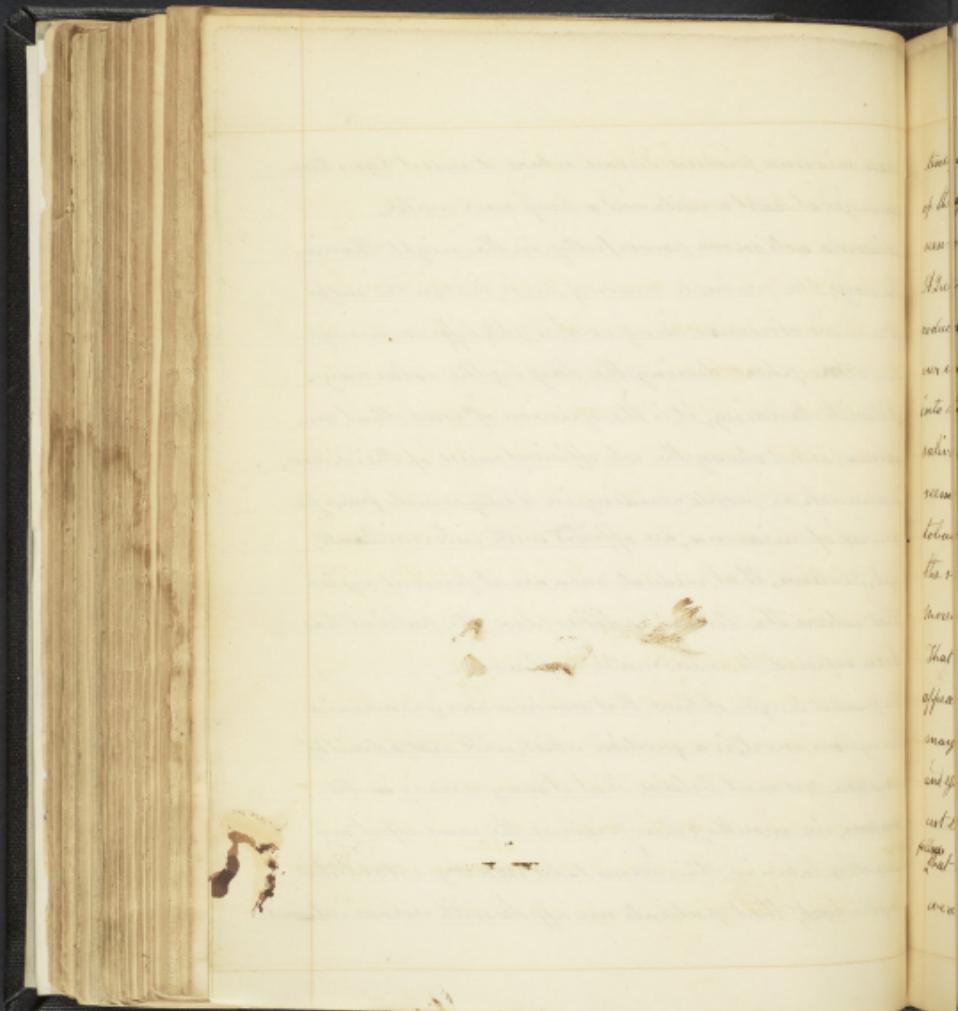
As a current of air is necessary to the conveyance
of miasma; it must be obvious, that, whatever may
impede, or turn the direction of the breeze, may
act as a barrier to miasma: Hence a family
may reside in a miasmatic district ^{very} near the
marsh whence miasma is exhaled, & at the same time
be perfectly free from its influence, provided a hill
or piece of wood intervene. Bancroft tells us that a
the miasma cannot be carried over water, I think I have



seen miasma produce disease where it must have been
conveyed at least a mile and a half over water.

miasma acts more powerfully in the night than in
the day; The probable reason of this is, that in the night
it is more condensed, being volatilized & diffused through
the atmosphere during the day by the solar rays.
Notwithstanding, it is the opinion of some, that mi-
asma, is not always the sole efficient cause of this Disease,
inasmuch as, people residing in a city remote from the
source of miasma, are affected with intermitants;
yet, I believe, that medical men are at present agreed
that where the disease so takes place, the patient has
been exposed to miasmatic influence.

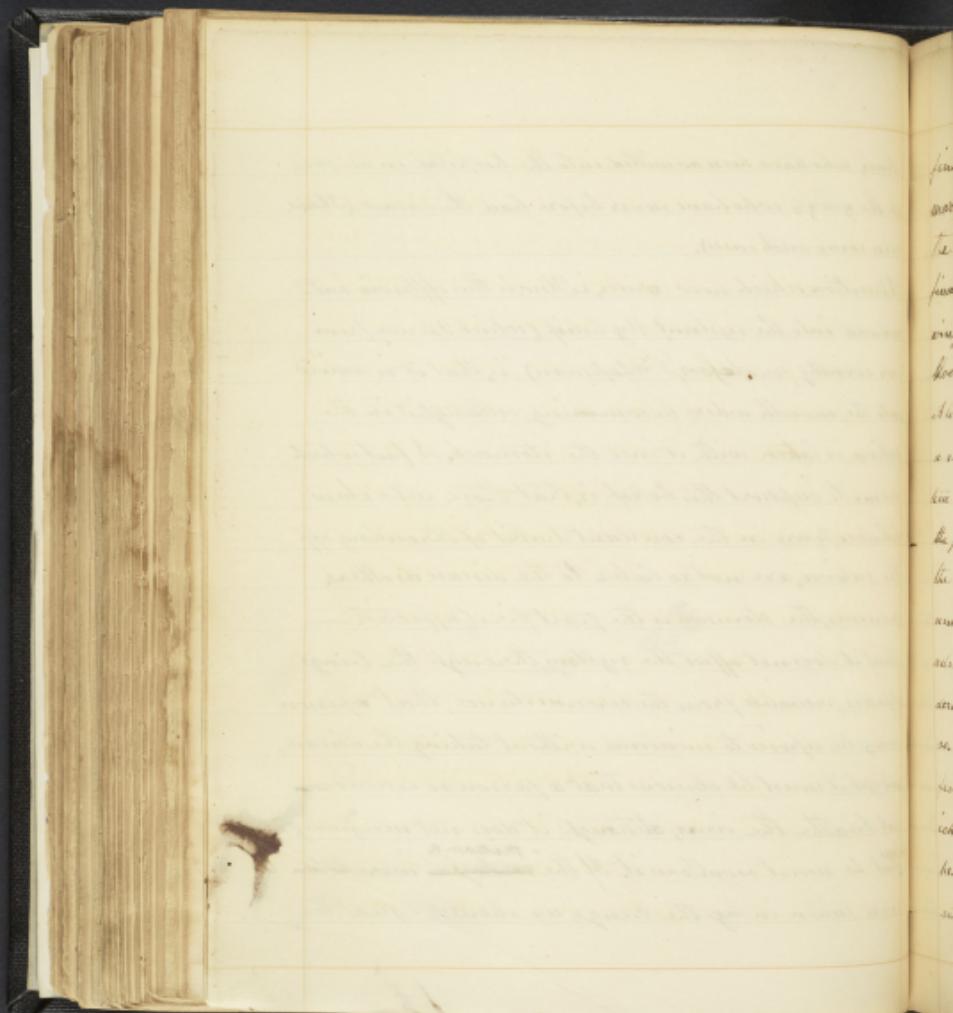
The greatest length of time that miasma may remain in
the system inert, is a question which, will not admit of
solution, yet most believe that it may remain in the
system, six months, & then produce the same effect as if
recently taken in. This seems to be clearly established
by the fact, that patients are affected with tertian intermit-



lentis, who have been admitted into the hospital in the fall of the year; & who have never before had the disease; (I have seen some such cases).

A question which now arises, is How, is this effluvia introduced into the system? My belief (which I derive from our worthy professor Chapman), is, that it is excreted into the mouth where becoming entangled in the saliva, is taken with it into the stomach. A fact which seems to support this belief, is, that those who chew tobacco, &c are in the constant habit of throwing off the saliva, are not so liable to the disease as others; moreover, the stomach is the part first affected.

That it does not affect the system through the lungs appears, probable from the circumstance, that a person may be exposed to miasma without taking the disease, and yet it must be obvious that a person so exposed must breathe the virus, although it does not necessarily follow that he must swallow it. If the ~~miasma~~ ^{miasma} were taken were taken in by the lungs, we should expect to



find the pulmonary organs the first to exhibit
marks of disease, - which (as I have premised) is not
the case. It would be absurd to suppose that it
finds its way into the system by the absorbers; beki-
wing that it will not act when presented at once to the
blood in the lungs. Of exciting Causes.

A few sumurious diet, fatigue, elevation of temperature, &
a moist atmosphere, or whatever tends to debilitate the sys-
tem may be viewed as the exciting cause of this disease. That the
pulmonary cause is sufficient to produce the disease without
the aid of another cause. - If a fact I have advanced on the man-
ner, by which the infection is taken into the system, be
submitted; we should a priori believe the proximate cause to be
arrangement of the prima via, & no one doubts that it is
so. It is a peculiarity of intermittent, that in the other
fevers, it increases the susceptibility to another attack, wh-
ich by most other fevers is rather diminished. Except
peculiar, it is the only fever that occurs in distinct fits. I shall
not point out the diagnosis which is very plain.

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The fits of an intermittent are called, the paroxysms; the interval between them, the apyrexia, & these paroxysms occur at stated periods of time, but the time that elapses between the paroxysms, is not of the same duration in every intermittent, on which account, it has received different appellations depending on the length of the apyrexia. Thus, a quotidian is a fever with twenty-four hours between the paroxysms, when the interval between the paroxysms is extended to forty-eight hours, it is termed a tertian, & when the paroxysm occurs every fourth day it is termed a quartan. There are still other forms of the quotidian, tertian, & quartan; thus, when two paroxysms (similar in all respects) occur every day it constitutes the double quotidian. Next we have the double tertian having a paroxysm every ^{two} days, the alternate being alike; & the double tertian with two paroxysms every other day, either with or without a single paroxysm on the intermediate day. The double quartan with two paroxysms every fourth day; The double ^{quartan} with a paroxysm.

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every day, the fourth being like the first; & the double quartan with a paroxysm on the first day, another on the second, & none on the third; & in like manner the triple quartan. The quintian seldom occurs.

There are said to be some intermitents which have a tendency to occur monthly, these are called menstrual, & some occur annually, called Annuals; but there may rather be considered as relapses than ^{as} the regular forms of the disease. It is under the tertian fever is the most frequent form of the disease; Next to this is the quotidian; while the quartan is the most rarely to be met with, & proves the most difficult of management, (D'Chapman).

All the fevers which I have seen, that did not speedily yield to the remedies employed, have assumed a protracted course, changing frequently from one form to another; thus a tertian would become a quotidian or quartan, To know accurately the precise form of an intermittent, seems of no great moment (farther than to prognosticate the end or continuance of it)

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as it leads to difference in the treatment.

Previously to an attack of the disease, the patient is languid, showing no disposition to attend to his regular occupation, his appetite is impaired & frequently fails him altogether, if proper remedies be interposed at this juncture the disease may be prevented; but if these symptoms are permitted for a few days, he is seized with the paroxysm, which takes place in the following manner, the symptoms just mentioned continue accompanied by pain in the head or vertigo & difficulty of breathing, the skin becomes contracted & is drawn down over the fore-head - A cold sensation is felt at intervals in the lower part of the back, which extends gradually towards the head - in a short time it extends over the whole becoming a complete rigor, the pulse is small, frequently irregular; this (the cold stage) continues for two or three hours, & is then succeeded by the hot or febrile, which commences with heat over the whole

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body, with dry skin - parched tongue - & intense thirst.
The pulse is now regular & voluminous,

Now the patient is often delirious - in a short time another set of symptoms takes place, these constitute the sweating stage, which consists of profuse sweating. The perspiration commences on the forehead & is soon diffused over the whole body.

During this stage the pulse becomes more soft & with it subsides the paroxysm, leaving the patient apparently well. - In a day or two (as the case may be) he is seized with another paroxysm which is repeated at regular intervals, until he recovers.

These are the symptoms of a common intermitter which, however, are liable to many exceptions. The disease continuing a long time, the spleen or liver becomes schirrous, occasioning tumors in the hypochondria, vulgarly called ague cakes, which by pressing on the ductus communis choleodocus

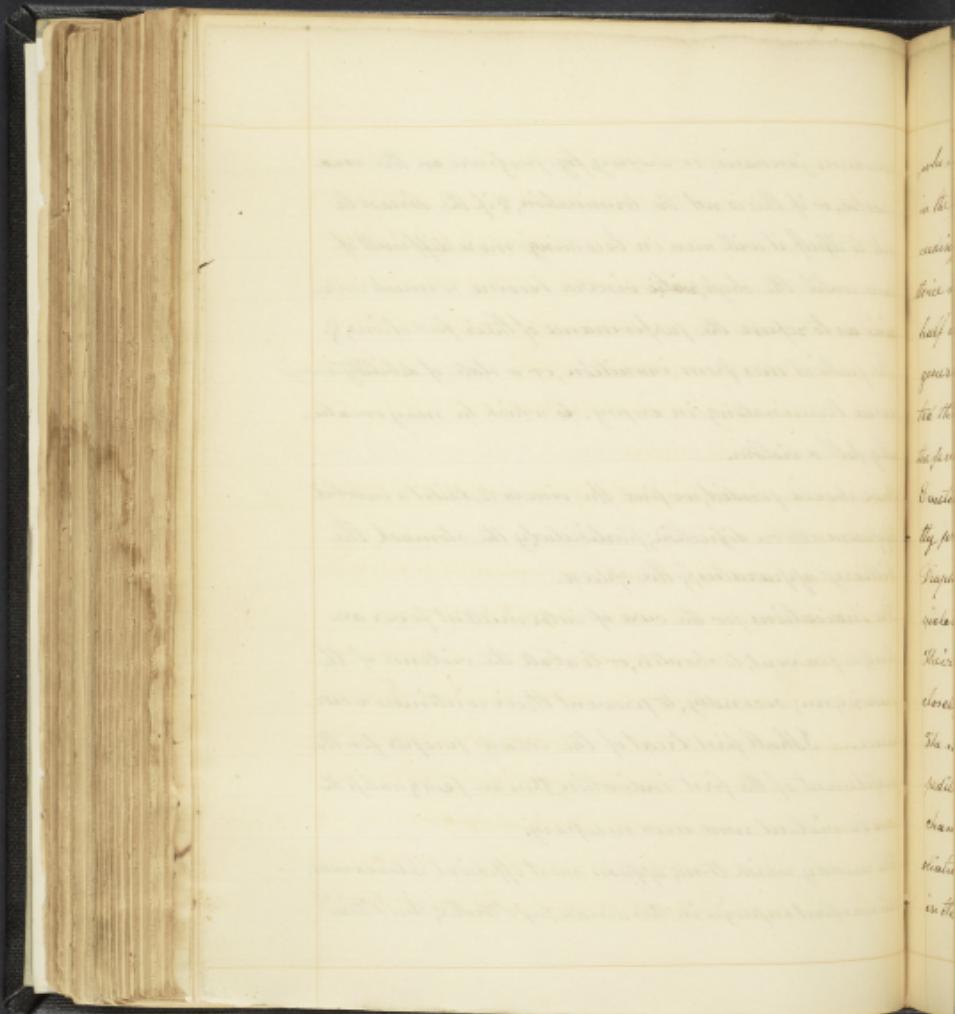
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produces jaundice; or destroy, by pressure on the veins
posterior, or if this is not the termination, & if the disease be
left to itself, it will run on becoming more difficult of
cure until the chylorhetic viscera become so much im-
paired as to refuse the performance of their functions, &
the patient dies from inanition, or a state of debility may
ensue terminating in dyspepsia, to which he may eventu-
ally fall a victim.

Now should periodical we find the viscera to exhibit a morbid
appearance on dissection; particularly the stomach, the
biliary apparatus, & the spleen.

The indications for the cure of intermittent fever are
first, to prevent, to shorten, or to abate the violence of the
paroxysm; secondly, to prevent their continued recur-
rence.— I shall first treat of the means proper for the
fulfilment of the first indication, there are few & unless the
case be violent none seem necessary.

The remedy, which to me appears most efficient is laudanum;
this was first employed in this disease, by P Trotter, And G Line



who subsequently made use of it, says that when given in the intermission, it did not prevent or mitigate the succeeding paroxysm; when given in the cold fit, it once twice seemed to remove it; but that when administered half an hour after the commencement most of the hot fits, it generally afforded immediate relief, it shortened & abated the paroxysm, it relieved the head, took off the heat of the fever, & promoted diaphoresis.

Emetics given in anticipation of the paroxysm frequently prevent it.

Diaphoretics have more advantage in alleviating the violence of the paroxysm than any other means. Their effect is not to be wondered at, as they imitate so closely the process adopted by nature to throw off the fit. The means used to promote sweating are fomentations, sudorificum, the use of warm infusions, &c. of mint, chamomile, horseradish, serpentaria, or caytorium perfusion; of these the latter is usually preferred & if given in the cold stage produces sweating by which the hot,

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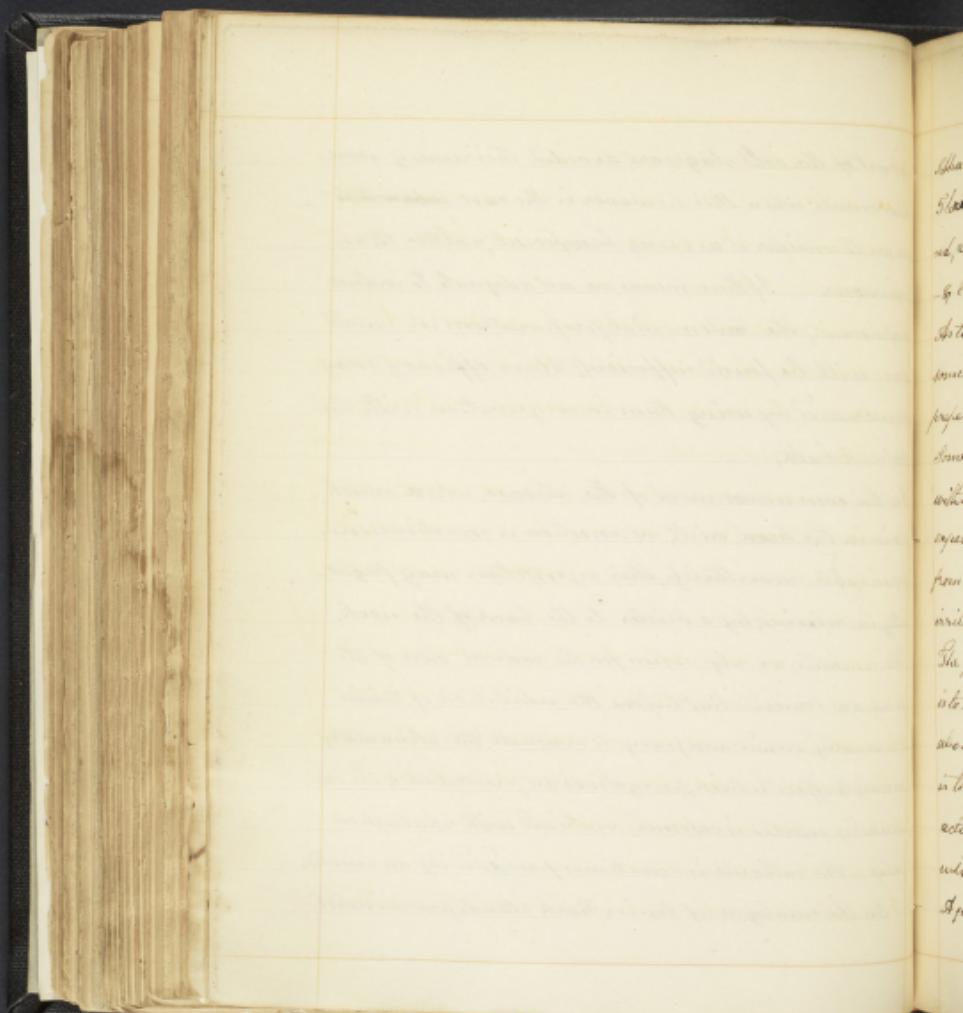
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If part of the cold stages are avoided, this remedy sometimes vomits; when this however is the case ~~when this~~
we are to consider it as being beneficial, rather than injurious. — If these means are not adequate to induce diaphoresis, the antimonial preparations in small doses will be found sufficient; their efficacy may be increased by using them in conjunction with the vapour bath,

In the commencement of the disease, where much pain in the head exists, venesection is sometimes indispensably necessary; though, this symptom may frequently be relieved, by a blister to the back of the neck.

The remedies we rely upon for the radical cure of the fever are tonics — But before the exhibition of Tonics it is usually deemed necessary to evacuate the alimentary canals, to effect which purgatives are prescribed, & one usually selected is calomel combined with rhubarb or jalap — the cathartic is sometimes preceded by an emetic.

In the catalogue of tonics Bark stands prominent



I shall therefore notice it first.

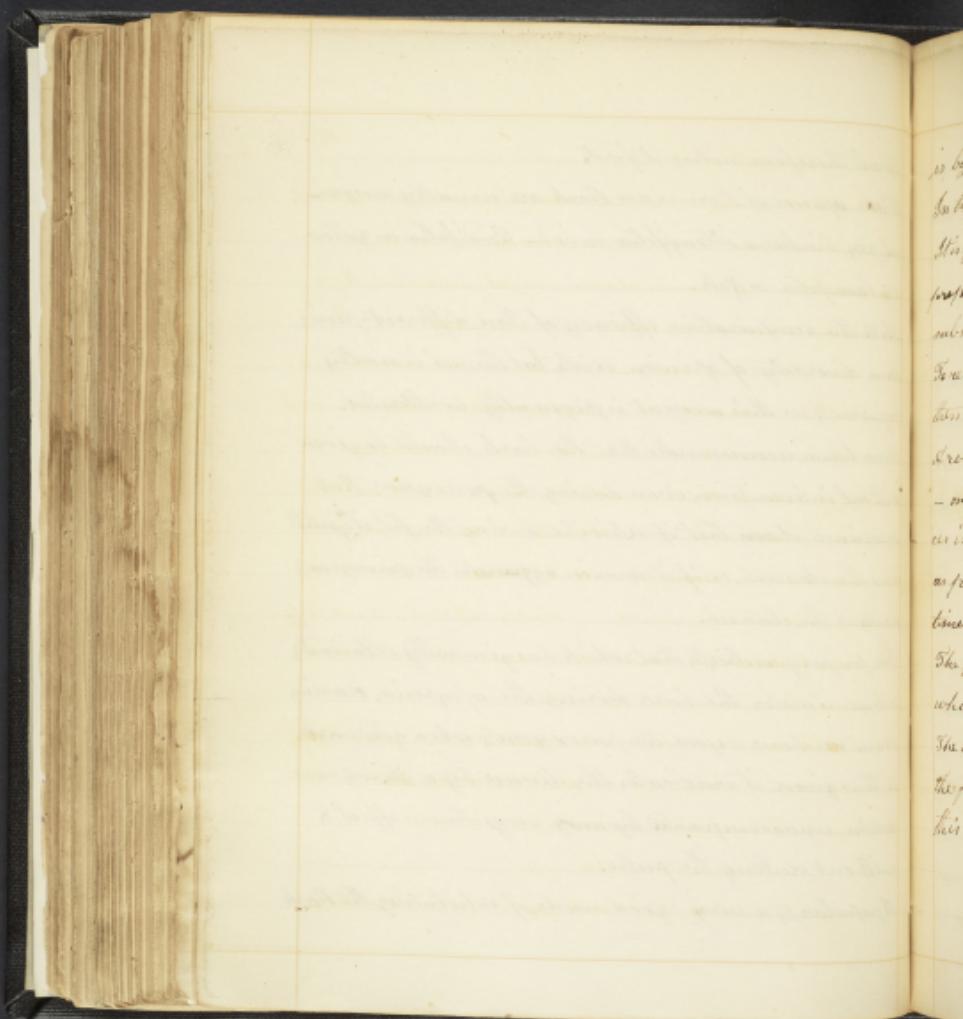
Three species of Peruvian Bark are usually recognized, viz. *Cinchona oblongifolia* or red *Cinchonina* or yellow & *lanceifolia* or pale.

As to the comparative efficacy of these different species, some diversity of opinion exists, but the red is mostly preferred, as on this account it is frequently adulterated.

Some have recommended that the bark should be given without intermission, even during the paroxysm: But experience shows that if exhibited during the fit, it excited pain in the stomach, or if it remain aggravated the paroxysms irritates the stomach.

The proper practice (that which has generally obtained), is to administer the bark during the apyrexia, ceasing about an hour before the paroxysm; when good bark is thus given, it eradicates the disease by a slow & sure action, unaccompanied by any very obvious effect, & without exciting the pulse.

A popular, & a very good mode of exhibiting the Bark



is by mixing it in wine.

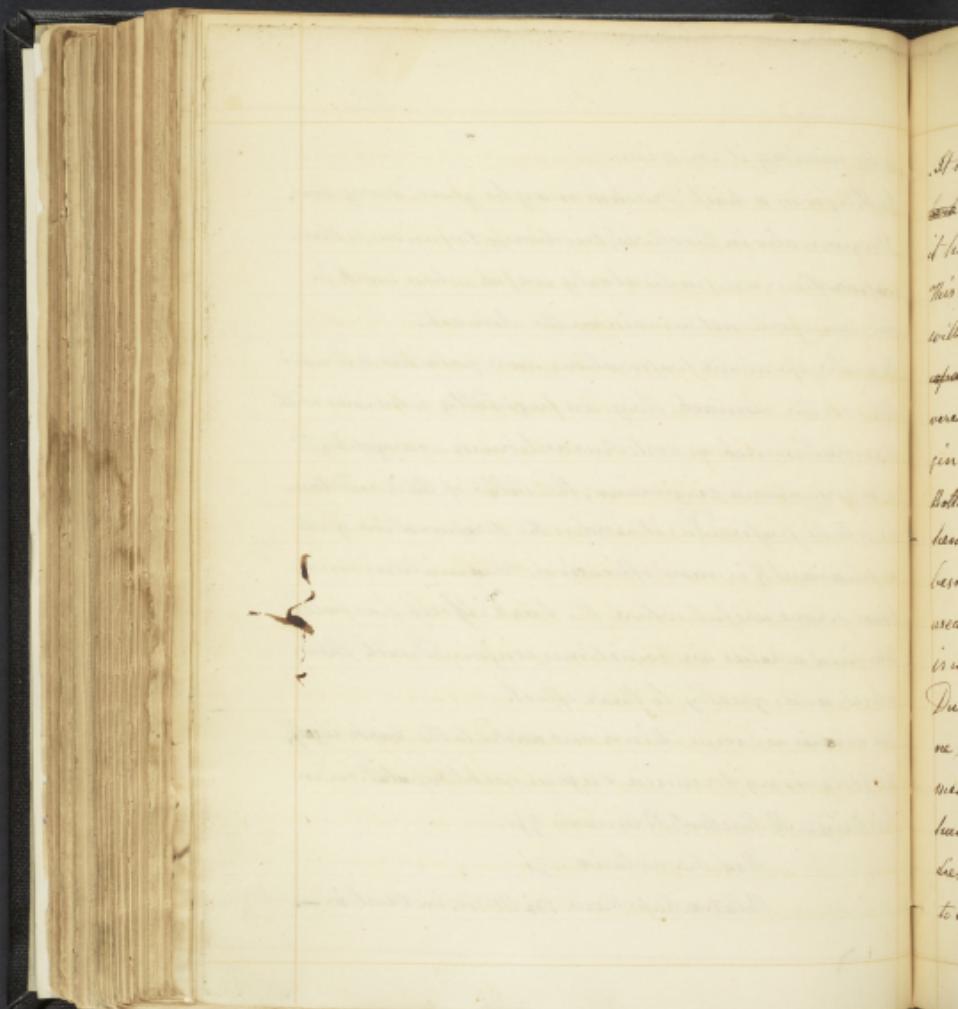
In this form a half Drachm may be given every hour,
It is given also in Decoctions, & Infusions, & these
preparations are particularly useful when bark in
substance will not remain on the stomach.

To render the above preparations more palatable, & to retain
them on the stomach, they are frequently combined with
Tremuties such as cort. Durantiorum - caryophylle
- or serpentaria virginiana; the latter of these substan-
ces is to be preferred, as it renders the preparation quite
as pleasant & is more efficacious. This mixture some-
times proves useful where the bark itself has failed.
The fixed alkalies are sometimes conjoined with them
which adds greatly to their effect.

The alkalies are some-times also added to the bark itself,
the following formula enjoys great reputation in
this City - Rx. Root. Peruviani 3j

Rad. serpentariae - 3j

Potash. Syp. Curb. Dij. M. Fix. in Charl. w.



. It has been a question, to what principle the bark has
and exercises activity, & indeed by different people
it has been ascribed to each of its component parts:
This question seems now to be completely decided for
within a few years two alkaline principles capable
capable of forming salts with acids, have been dis-
covered; that furnished by the pale bark, is termed
cinchonine, that furnished by the yellow quinine.
Both of these principles are contained in the red bark;
hence, other considerations aside; it should be the
best.— Cinchonine, the alkali of the ^{pale} bark, is
used pure, while quinine, the alkali of the yellow
is used in combination with sulphuric acid.

During the last summer, the sulphate of quino-
ne was employed more generally than any other
medicine, & with the most decided effect. All who
have used it concur in its superiority over other reme-
dies.— The dose is a grain, which is supposed equal
to a drachm of the bark in substance—

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It is given in the form of pills or in solution, & as
to the time of exhibition is subject to the same
rules as the crude bark.

for the exhibition of the sulphate of Quinine
the following formulæ may be employed

Ay. Sulpho Quinin. 31x

Conserve Rose, 28

M. f. &c. &c.

one of these pills are to be taken every hour during
the apyrexia -

or in solution it may be prescribed thus

Ay. Sulpho Quinin. 30x 14

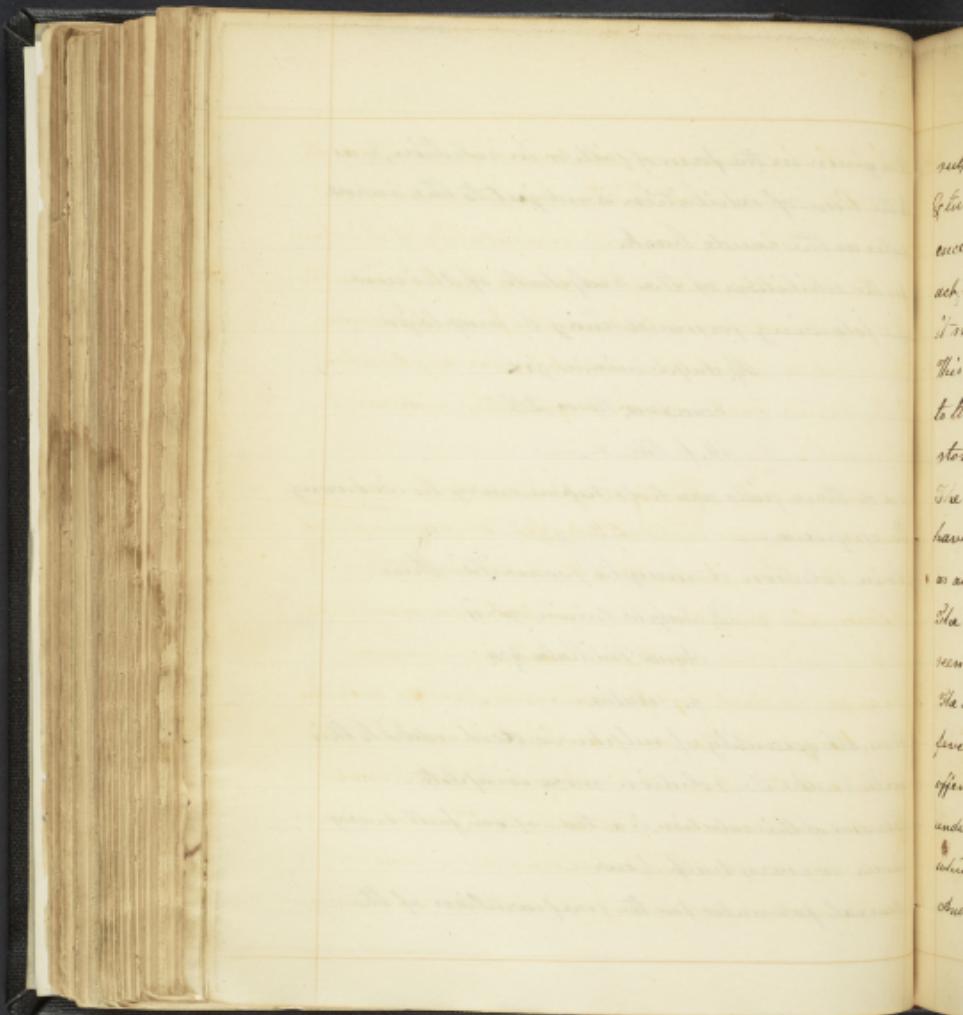
Aqua Distillata 3vij

f. solution. -

A small quantity of sulphuric acid added to this
will make the solution more complete -

The dose of this solution, is a tea-spoon full every
hour, or every half hour -

several formulæ for the preparation of the -



sulphate of quinine, are contained in the eleventh & twelfth volumes of the London journal of sciences. — When owing to the irritability of the stomach, this remedy cannot be given by the mouth, it may be administered in the form of enemas; this remark, however, is much more applicable to the crude bark, which frequently irritates the stomach.

The Cortex queusi; principi virginianae; & the salicis, have all been used as substitutes for the peruviana bark, as also the cortex carcarilla & the candia alba. The aromatic qualities of the two last mentioned bark, seem to suit them well for irritable stomachs.

The angostura bark posse^s considerable power over this fever, though like the peruviana bark it is apt to prove offensive to the stomach — A pernicious bark is vend^ed under the name angostura, intenably there^m several marks which may serve to distinguish it from the genuine.

Another vegetable remedy employ'd in this fever is serpentaria.

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but of ~~that~~ I have said all that seems necessary when speaking of the peruvian bark, as it is seldom used alone.

The spirit of turpentine has been much employed in this disease, & sometimes removes the disease when the other remedies have failed.

Asturic is a remedy, which by many is thought to be omnipotent in this fever, & by many it's objected to apparently with good reason. - I am not qualified to judge of its merit, from not having seen it much employed, yet I think it greatly inferior to the bark, & when employed it should be used with much discrimination. - The preparation usually employs a Fowars solution.

The preparations of iron have also been recommended & used with advantage. The only one of these that I have seen used was the purficate - its good effect was very obvious - most of the other preparations of this metal are worthy of trial.

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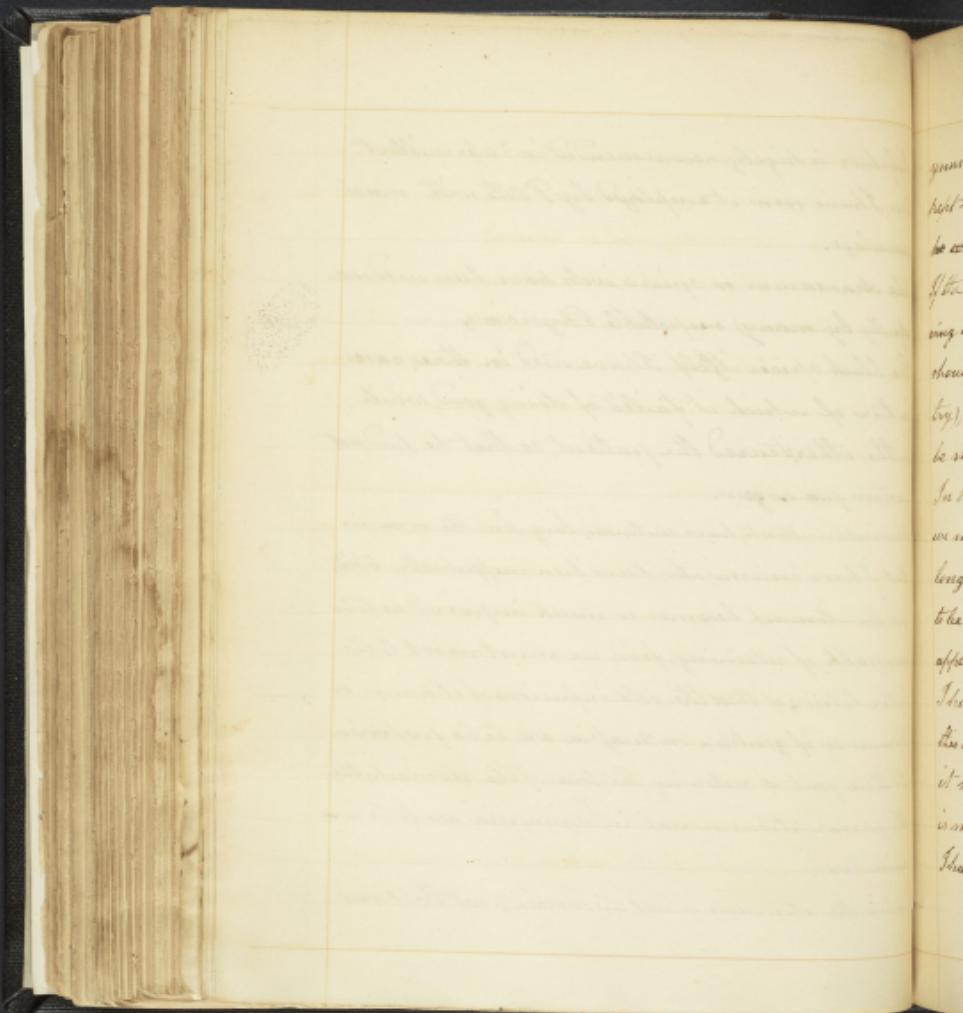
Sulphur is highly recommended in intermittent fever, I have seen it employed by Dr. Ogle, with much advantage.

Tea Aranearium or spiders webs have been used successfully by many respectable Physicians.

The black spider itself I have used in three cases, in two of which it failed of doing good, while in the other it cured the patient so that he had not another paroxysm.

When intermitents have continued long, and the remedies that I have enumerated have been ineffectually tried, if the stomach becomes so much impaired as to be incapable of retaining food, we must resort to the bitter tonics; of these the cold infusions of chamomile flowers or of gentian or Sassafras are to be preferred. If these fail of restoring the tone of the stomach, the prescriptions usual in Dyspepsia are to be administered.

When the stomach is not disordered, yet the fever -



Yours continue to occur regularly; we are to presume they are kept up by habit, & by a perseverance in the use of emetics we will be relieved. They will be removed.

If the viscera continue in a state of disease, the patient having in other respects recovered, mercury is to be resorted to; but should this be ineffectual, he must (if he be in the country) be removed to a city, for by a city residence he will be most likely to recover.

In the administration of the remedies I have enumerated we must be careful not to persevere in the use of one for a long time; but must substitute another as soon as one ceases to be effectual, for it is a known fact that what at one time appears to be inert, is at another most efficacious.

I have not yet taken notice of the diet necessary in this disease, & respecting it, have only to observe that it should consist of light nutritious food, & that which is most easy of digestion.

I have now finished what I had to say on this disease.

Presidence No 133. Market St.